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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/742,177	12/22/2000	Carina Maria Lind	1190-2110	8079
27045	7590	12/29/2004	EXAMINER	
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR C11 PLANO, TX 75024			SEFCHECK, GREGORY B	
			ART UNIT	PAPER NUMBER
			2662	

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/742,177

Applicant(s)

LIND, CARINA MARIA

Examiner

Gregory B Sefcheck

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- Applicant's Amendment filed 9/7/2004 is acknowledged.
- Claims 1, 4, 10, and 12-16 have been amended.
- Claims 3 and 22-28 have been cancelled.
- Claims 1, 2, and 4-21 remain pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4-10, 12-14, and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US006633538B1), hereafter Tanaka, in view of Aziz et al. (US006597956B1), hereafter Aziz.

- In regards to Claims 1, 2, 4, 9, 10, 12, 14, and 16,

Tanaka discloses a node representation system and method for a plurality of nodes in an IP network (Title; Abstract; Col. 4, lines 62-65; claim 1,12 – method of dynamically designating a queue-responsible node in an IP network having plurality of nodes; claim 16 – system for queue-handling in an IP network having plurality of nodes).

Tanaka shows that a node is designated as a master node or a slave node based on the IP address uniquely assigned to that node (Abstract; Col. 4, lines 52-54; Col. 5, lines 11-15; claim 1,12,16 – determining IP addresses of plurality of nodes; claim 1,12 - dynamically designating a master node; claim 1,12,16 – designating all other nodes as slave nodes).

Referring to Fig. 1 and 10, Tanaka shows the master node maintaining a schedule table 112C (master queue), which defines when and how jobs are performed at each node (Col. 5, lines 60-65; claim 1,12,16 – maintaining the queue positions of all nodes in a master queue of master node).

Tanaka further discloses the detecting of node activations and failures in the network (Col. 2, lines 43-58). Along with the disclosed resource duplication among the nodes, this provides dynamic configuration of the node representation system (Col. 2-3, lines 60-52; claim 9,10,12,14,16 – detecting changes in the number and identity of nodes connected to the network/cluster and repeating master designation).

Tanaka does not explicitly disclose ranking of the IP addresses of the network nodes and designating the highest or lowest ranking IP address as the master node.

Aziz discloses a method and apparatus for controlling an extensible computing system (Title). Aziz further discloses controlling each of these clusters through a master-slave relationship. Aziz shows that a master segment manager is selected by comparing assigned sequence numbers of all active segment managers, where the lowest or highest sequence number may be used to select the master (Col. 16, lines 27-

35; claim 1 – node having the highest IP address is designated master; claim 2 – designating performed by comparing numerical values of node IP addresses; claim 4 – node having the lowest IP address is designated master).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method and system of Tanaka by designating the master node of the network by comparing node IP addresses and selecting the node with the highest or lowest address as the master, as shown by Aziz. This would provide a cost-effective way of differentiating and designating a master among the plurality of nodes, since each node is assigned a unique IP address.

- In regards to Claim 5,

Tanaka discloses a node representation method for a plurality of nodes in an IP network that covers all limitations of the parent claim.

Tanaka shows that each slave node is capable of functioning as master in the event of a failure to the active master (Col. 2, lines 38-43; Col. 12, lines 26-40; Col. 14, lines 50-61; claim 5 – each node is capable of functioning as master or slave).

- In regards to Claim 6, 7, 17, and 18,

Tanaka discloses a node representation system and method for a plurality of nodes in an IP network that covers all limitations of the parent claim.

Tanaka discloses a duplication resource process/unit at each node for duplicating a resource from the master node to the slave nodes (Col. 3, lines 20-25; claim 6,17 – maintaining a copy of the master queue at one or more slave nodes; claim 7,18 – maintaining master queue is performed at each slave node).

- In regards to Claim 8,

Tanaka discloses a node representation method for a plurality of nodes in an IP network that covers all limitations of the parent claim.

Referring to Figs. 4 and 5, Tanaka shows that, upon activation in the network, a slave node exchanges communications with the master node to obtain a virtual IP address, enabling the node to access the network (Col. 8-9, lines 40-21; claim 8 – each slave node requesting a queue position from master for access to shared network resources).

- In regards to Claim 13,

Tanaka discloses a node representation method for a plurality of nodes in an IP network that covers all limitations of the parent claim.

Tanaka shows that the method is capable of detecting the failure/disconnection of the master node (Col. 6, lines 23-30; claim 13 – detecting the disconnection of the master node from the network).

- In regards to Claims 19-21,

Tanaka discloses a node representation system for a plurality of nodes in an IP network that covers all limitations of the parent claim.

Tanaka discloses the method and system in a LAN/WAN environment (Col. 1, line 22; claim 19 – network comprises a LAN; claim 21 – network comprises a WAN).

Tanaka also shows utilizing virtual addressing within these environments (Col. 4, lines 38-67; claim 20 – network comprises a VLAN).

3. Claims 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Aziz as applied to claims 1, 10, and 12 above, and further in view of Kang (US006658474B2).

- In regards to Claims 11 and 15,

Tanaka discloses a node representation method for a plurality of nodes in an IP network that covers all limitations of the parent claim.

Tanaka shows performing the functions of a failed/disconnected node by its monitoring node. Tanaka does not explicitly show removing the failed node from the master queue of the network.

Kang discloses a system and method of allocating node identification. Referring to Fig. 5, Kang discloses a node that disconnects from the network. The master node

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broadcasts a disconnect message informing the other network nodes that the disconnecting node is removed from network communication (Col. 6, lines 2-20; claim 11/15 – deleting queue positions of disconnected nodes from master queue).

It would have been an obvious design choice by one of ordinary skill in the art at the time of the invention to modify the method of Tanaka by deleting the queue/schedule position of a failed node in the network as taught by Kang, thereby preventing the failed node from utilizing network resources that could be directed to active nodes.

Response to Arguments

3. Applicant's arguments with respect to claims 1, 12 and 16 have been considered but are moot in view of the new ground(s) of rejection.

4. Applicant's arguments filed 9/7/2004 regarding claims 2 and 4 have been fully considered but they are not persuasive.

- In the Remarks on pg. 8 of the Amendment, the Applicant contends that Aziz contains no reference to IP addresses nor a suggestion that IP addresses may be used, and therefore, the use of Aziz in the rejection of claims 2 and 4 should be withdrawn.

- While the Examiner agrees with the Applicant as to whether Aziz contains reference to IP addresses, the use of the teachings of Aziz in the rejection of claims 1 and 12 is to illustrate how a unique number assigned to a node can be ranked and used to dynamically designate a master node among a plurality of nodes. The Examiner believes that it would be obvious to one of ordinary skill in the art at the time of the invention to translate this concept shown by Aziz to the uniquely assigned IP addresses of the nodes in Tanaka for designating a master node.
- In the Remarks on pg. 8 of the Amendment, the Applicant contends that the rejection of claims 11 and 15 over Tanaka in view of Aziz further in view of Kang is improper because Kang does not teach or suggest queuing.
- Again, the Examiner agrees with the Applicant that Kang does not explicitly disclose queuing. However, the teaching of Kang relied upon is the concept of removing the information of a disconnected node from the network by a root (master node). The Examiner believes that it would have been obvious to one of ordinary skill in the art at the time of the invention to translate this concept shown by Kang by removing the queue position of a disconnected slave device by the master device in the method of Tanaka.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory B Sefcheck whose telephone number is 571-272-3098. The examiner can normally be reached on Monday-Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GBS
12-17-2004



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